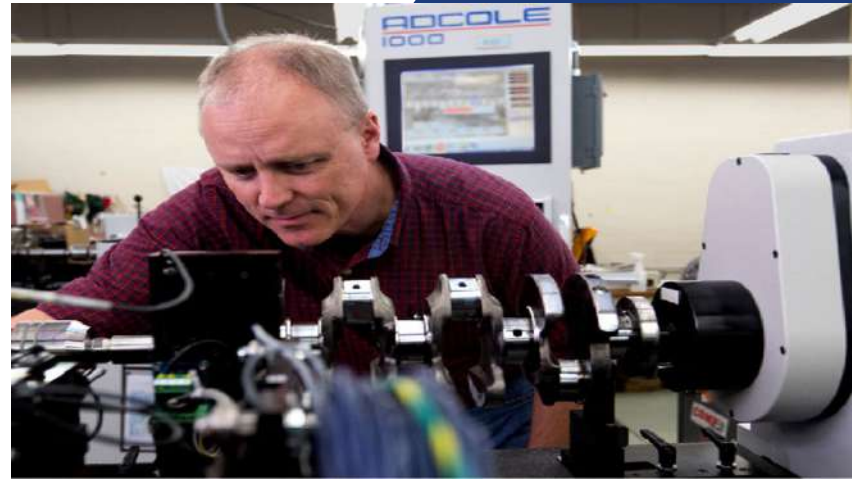


## ADCOLE 1000

### Surface Roughness Gage

MODEL 1000



The Adcole Model 1000 is a high precision surface roughness measurement gage engineered to inspect camshafts, crankshafts and other precise cylindrical components. This horizontally loaded gage offers very fast surface measurement times, and delivers extremely accurate part measurement data.

Featuring tactile, stylus-based measurements, the gage is a comprehensive quality inspection solution. The Model 1000 includes a rugged, self-standing horizontal granite surface plate with affixed headstock, tailstock and carriage.

#### **The Model 1000 is engineered to measure intricate features on:**

- Camshafts
- Crankshafts
- Gears & Transmission Shafts
- Precision Hydraulic Cylinders
- Balance Shafts
- Eccentric Shafts
- Robotic Shafts & Cylinders
- Pump Lobes / Pump Shafts

#### **Features:**

- Gage uses commonly available stylus tip sizes: 2  $\mu\text{m}$ , 5  $\mu\text{m}$ , or 10  $\mu\text{m}$  radius diamond tipped, ruby skidded probes, or through skid probe types in 2  $\mu\text{m}$  and 5 tip  $\mu\text{m}$  radii
- Automated, push-of-a-button gage provides high density part data – 2000 data points per mm
- Model 1000 sits on isolator mounts to eliminate vibration
- Self-contained, sealed and air-conditioned operator console is available for both shop floor and lab environments
- Windows-based interface affords flexibility and compatibility

#### **Benefits:**

- Fast cycle times for improved part inspection throughput
- Statistical data can be maintained for process control, or forwarded to centralized SPC data collection point
- Stylus tips are calibrated and verified using a multi-patch master
- Simple menu-driven utility programs for making changes or setting up a new part
- Easy-to-use operator interface and software

# 1000 Gage Specifications

<b>Accuracy Specifications</b>	Vertical Resolution	<1 nm
	Range	40 micrometers
	Lateral Resolution	0.5 micrometers
	Measuring Speed	1 mm/s (adjustable)
<b>General Specifications</b>	Part Length	Up to 915 mm (36")
	Swing Diameter	170mm (6.7")
	Part Weight (Max)	100 kg (222 lbs.)
	Rotational Speed (Max)	1 to 20 RPM
<b>Base Gage Dimensions</b>	Gage Width	762mm (30")
	Gage Height	1575mm (62")
	Gage Depth	1321mm (52")
	Gage Weight	2495 kg (5,500 lbs.)
	Probe Types	2 $\mu$ m, 5 $\mu$ m, 10 $\mu$ m radius diamond tipped, ruby skidded inductive probes. 2 $\mu$ m, 5 $\mu$ m radius through skid probe types
	Tip Radius	2, 5 or 10 micrometers
	Stylus Force	0.7 mN to 1 mN selectable
	Stylus Lift-off	Automatic / Programmable
	Measuring Speed	1 mm/s (adjustable)
	Resolution	< 1 nm
	Cut-off Value	0.08 to 8.0 mm (0.003" to 0.3") configurable
	Evaluation Length	4 mm (adjustable)
	Filter	2CR, Gaussian, Robust Gaussian
	Overall Error	<10% of typical industry part tolerance

## Gage Capacities

Features Measured	Roughness Parameters (Tactile)		
<ul style="list-style-type: none"> <li>Main bearing journals</li> <li>Pin journal sidewalls</li> <li>Post and flange diameters</li> <li>Rod journals</li> <li>Thrust faces</li> <li>Camshaft journals and lobes</li> </ul>	Ra	Rpm	MR1
	Rp	RzDIN	MR2
	Tp (Rmr)	Rp/Rt	R3z
	Rsk	Rk	RzJIS
	Htp-1/2/3/4/5/6 (Rdc)	Rpk	
	Rt	Rvk	

## Adcole Machine Support

Adcole machine support is provided by a factory trained field service team that is backed by 50 years of industry experience and ISO 9000 certification. Machine and application support, machine retrofit and upgrade services, plus part inspection and gage recertification services are offered to our global customer base. Adcole's support regions include Japan, Korea, China, Brazil, Mexico, India, Europe and North America. Regular and after hours email and phone support is available 8am-11pm EST.